

• reaction generated enough heat to dry the product are Examples 1 and 2, wherein phosphoric acid is used. Moore describes the preparation of an organic salt in Example 3. However, when using organic acids, Moore found it necessary to add water to cool the reaction mixture (column 10, lines 53-55). Of course, thereafter, an additional drying step was required and Moore describes drying the granules in a conventional warm air drum dryer (lines 56-59). In this respect, Moore teaches away from the present invention wherein the heat of the reaction mixture is controlled (thus solving the problem experienced by Moore) and no additional drying step is required when forming organic acid salts. Moore does not anticipate the present invention for this reason also.

Reconsideration and withdrawal of the rejection under 102(b) is respectfully requested.

Claims 3-4, 11, and 13 are rejected under 35 U.S.C. 103 as being unpatentable over Moore in view of Mori et al. This ground of rejection is respectfully traversed. In the Office Action, at page 3, the Examiner describes the process of Moore as the combination of acids and bases to form a transient fluid adhesive salt which provides 50% or more of the final weight of the granules. Also, the Examiner describes that the granules may be coated with between 0.5 and 4.0% of fine inert solids. This description of Moore points out the difference between Moore and the present invention. Moore describes adding only a very small amount of an inert solid after the granules have been formed. The process of the present invention starts with a much greater amount of an inert carrier and forms the granules by loading of organic acids and bases on the inert carrier.

The description further recites that "Moore discloses a method of producing homogenous mineral granules of animal feed supplements by commingling acids such as acetic, propionic, citric acid..." While this is an accurate representation of the text of

Moore, one skilled in the art will recognize that the Moore process will not function as described. For example, it will be impossible using Moore's method to incorporate citric acid into the formulation. Example 3 describes the formation of a typical calcium salt. Addition of citric acid would cause the formation of calcium citrate due to the reaction with the base and the desired product will not be produced. In the process of the present invention, this does not happen because the liquids are absorbed onto the carrier-based granules.

Mori et al. is used by the Examiner to teach the use of a caking preventive agent such as silica gel with a range of from 0.1 to 5 % by weight. The caking preventative agent is added by "mixing an extremely small amount of the fine particles of the caking preventative agent with the granules" (column 4, lines 57-62) and "[w]hen fine particles of the caking preventative agent are mixed with the granules, the surface of the granules are [sic] coated, the coated granules are more effective." (column 5, lines 11-15). First of all, the inert carrier of the present invention is not a caking preventative agent as described in Mori et al. It is a starting ingredient and does not directly having any effect on caking of formed granules. It is clear in Mori et al. that the caking preventative agent is added after the granules have formed and serves to coat the granules to prevent the granules from sticking to each other, or caking. The silica gel of Mori et al. is used for a completely different purpose than the use of silica gel as an alternative inert carrier in the present invention. There is nothing whatsoever in Mori et al., or in any combination of Moore and Mori et al., that teaches or suggests the use of an inert carrier to which a liquid organic acid is applied. Reconsideration and withdrawal of the rejection under Section 103 is respectfully requested.

The Kalmbach reference does not relate to the synthesis of salts of organic acids. It describes only mixing of nutrients and a carrier and the subsequent pelletization. There is no teaching of in-process granulation.

The Merkel et al. describes a process based on vaporous propionic acid and the resulting salt needs to be dried in a separate step. Energy is required to produce the vapor and to dry the salt. Further, the salt produced is not a granulate, but a solid that needs to be ground, a further processing step requiring further inputs of energy.

Kobayashi et al. teaches nothing with respect to the formation of organic salts from organic acids and a base. It teaches only the formation of granulates from an already produced salt.

Overton et al. teaches how palletized animal feeds can be improved by the addition of a water-soluble form of calcium, such as calcium hydroxide. Since in the present invention it is anticipated that no calcium hydroxide will be found in the final formulation, it cannot fulfill the task described in Overton et al. of being a pellet improving or granulate improving agent.

Moore (U.S. 4,997,469) describes a method to produce natural nitrogenous granules. Nitrates are often not desired in feed supplements because of environmental issues.

Accordingly, the purpose of the claimed invention is not taught nor suggested by the cited references, nor is there any suggestion or teaching which would lead one skilled in the relevant art to combine the references in a manner which would meet the purpose of the claimed invention. Because the cited references, whether considered alone, or in combination with one another, do not teach nor suggest the purpose of the claimed

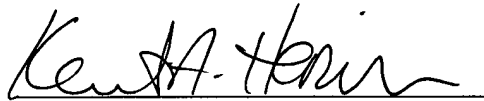
invention, Applicant respectfully submits that the claimed invention patentably distinguishes over the prior art, including the art cited merely of record.

Based on the foregoing, Applicant respectfully submits that its claims 1-12, 15 and 18-21, as amended, are in condition for allowance at this time, patentably distinguishing over the cited prior art. Accordingly, reconsideration of the application and passage to allowance are respectfully solicited.

The Examiner is respectfully urged to call the undersigned attorney at (515) 288-2500 to discuss the claims in an effort to reach a mutual agreement with respect to claim limitations in the present application which will be effective to define the patentable subject matter if the present claims are not deemed to be adequate for this purpose.

Respectfully submitted,

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